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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,501	03/15/2004	Kevin A. Seiling	01-180 CIP	9350

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EXAMINER	
VO, HAI	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,501	SEILING, KEVIN A.	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4 and 6-44* is/are pending in the application.

4a) Of the above claim(s) *9-17 and 25-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-8,18-24 and 34-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0912*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1, 2, 4, 6-8 and 18-24, and 34-44 in the reply filed on 10/17/2005 is acknowledged.
2. The claim objections have been withdrawn in view of the present amendment.
3. The art rejections over Detterman (US 5,789,453) in view of Andres (Des 426,320) are maintained.
4. The art rejections over Detterman (US 5,789,453) in view of Cantley (6,848,677) are withdrawn because none of the cited reference teach or suggest the deck plank having a structure as recited by the claims.
5. The provisional obviousness-type double patenting (ODP) rejections will not be withdrawn until the submission of the terminal disclaimer.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2, 4, 6-8, 34, 40-42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831). Detterman discloses a foam material for use in construction material having a ***substantially*** closed cell structure (column 4, lines 5-7). Likewise, it is clearly apparent that the foam of Detterman having predominantly closed cell structure

which would read on Applicant's closed cell content from 30% to 70% by volume. Detterman discloses the foam made from chlorinated pvc and glass fibers (abstract, column 11, lines 64-65). Detterman does not specifically disclose the shape of the foam material. Nystrom, however, teaches a construction member comprising a top surface, a concave bottom surface, a first side surface, and a second side surface. The first and second side surfaces are substantially orthogonal to the top surface (figure 2). Nystrom discloses the concave surface of the bottom surface defining a continuous art between the first side surface and second side surface. Nystrom teaches the deck plank having four rounded corners. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the construction material having the shape as taught by Nystrom motivated by the desire to shed water from its upper surface and facilitate stacking of the boards one on top of the other during storage and handling (column 2, lines 10-19).

Detterman discloses the foam composition comprising a pvc with the amount within the claimed range (table 1). Detterman discloses the glass fiber added with an effective amount for the intended purpose (column 12, lines 9-13). Detterman does not specifically disclose the amount of the glass fiber. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the glass fiber with an amount instantly claimed motivated by the desire to increase the mechanical strength of the foam material. This is in line with ***In re Aller***, 105 USPQ 233, which

holds that discovering the optimum or workable ranges involves only routine skill in the art.

Detterman discloses the blowing agent being sodium bicarbonate and azodicarbonamide. Detterman discloses the amount of the blowing agent can be varied to obtain the desired specific gravity of the foam material (column 12, lines 30-34). Detterman does not specifically disclose the amount of the blowing agent. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the blowing agent with an amount instantly claimed motivated by the desire to obtain the desired specific gravity of the foam material. This is in line with ***In re Aller***, 105 USPQ 233, which holds that discovering the optimum or workable ranges involves only routine skill in the art.

Neither Detterman nor Nystrom teaches or suggests the processing steps recited in the claims. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of Detterman as modified by Nystrom is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity (see discussion above). Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the

claim is unpatentable even though the prior product was made by a different process. ***In re Thorpe***, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. ***In re Marosi***, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Detterman/Nystrom.

Nystrom does not teach the deck plank wherein the radius of the arc of the bottom surface is not less than 50 inches. However, since the arc radius is recognized as a result-effective variable, differences in arc radius will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the decking having the bottom surface defining an arc with the radius in the range instantly claimed motivated by the desire to facilitate stacking of the boards one on top of the other during storage and handling. This is in line with ***In re Aller***, 105 USPQ 233, which holds that discovering the optimum or workable ranges involves only routine skill in the art.

8. Claims 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831) as applied to claim 34

above, further in view of Koffler et al (US 6,818,676). Detterman does not teach the use of the physical blowing agent. Koffler, however, teaches a foam composition for use in fencing having a specific gravity up to 0.9 and made from a physical blowing agent such as nitrogen, CO2, CFC and butanes (column 7, line 60 to column 8, lines 1-20, column 15, lines 5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the physical blowing agent for the chemical blowing agent to generate the voids of the foam material because physical blowing agent and physical blowing agent have been shown in the art to be recognized equivalent blowing agents for the void formation of the construction materials.

9. Claims 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831) as applied to claim 34 above, further in view of Patterson et al (US 6,784,230). Detterman does not teach the amount of the blowing agent and the use of citric acid as a blowing agent. Patterson, however, teaches a foam composition for use in fencing comprising up to 3% by weight of the blowing agent such as citric acid (column 10, lines 25-26, and column 4, lines 57-58). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the chemical blowing agent in the amount instantly claimed motivated by the desire to obtain the desired specific gravity of the foam material.

10. Claims 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831) and Guntherberg

et al (US 6,566,436). Detterman does not specifically disclose the glass fiber diameter. Guntherberg, however, teaches a molded article for use in fencing comprising reinforcing glass fibers with the fiber diameter in the range from 6 to 20 microns (column 12, lines 1-2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the glass fiber with the fiber diameter as taught by Guntherberg motivated by the desire to obtain an ease of processing and handling of the materials in addition to increasing the mechanical strength of the foam material.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) and Guntherberg et al (US 6,566,436) as applied to claim 18, further in view of Koffler et al (US 6,818,676). Detterman does not teach the use of the physical blowing agent. Koffler, however, teaches a foam composition for use in fencing having a specific gravity up to 0.9 and made from a physical blowing agent such as nitrogen, CO2, CFC and butanes (column 7, line 60 to column 8, lines 1-20, column 15, lines 5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the physical blowing agent for the chemical blowing agent to generate the voids of the foam material because physical blowing agent and physical blowing agent have been shown in the art to be recognized equivalent blowing agents for the void formation of the construction materials.

12. Claims 18-21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831) and Ittel (US

2005/0058822). Detterman does not specifically disclose the length and the size of the glass fiber. Ittel, however, teaches a foam composition for use in fencing comprising reinforcing glass fibers with the fiber length in the range from 0.001 to 0.03 microns or 25 to 762 microns [0038], [0078]. Ittel teaches the glass fibers having an L/D aspect ratio from 20 to 1000 [0037]. Likewise, the glass fiber has a fiber diameter in the range overlapping with the claimed range. It appears that the bulk density of the glass fiber is dictated by the fiber size and fiber length. Therefore, it is not seen that the bulk density would be outside the claimed range as the fiber size and fiber length are within the claimed ranges. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the glass fiber with the length, size and the bulk density as taught by Ittel motivated by the desire to obtain an ease of processing and handling of the materials in addition to increasing the mechanical strength of the foam material.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Nystrom (US 5,474,831) and Ittel (US 2005/0058822) as applied to claim 18, further in view of Koffler et al (US 6,818,676). Detterman does not teach the use of the physical blowing agent. Koffler, however, teaches a foam composition for use in fencing having a specific gravity up to 0.9 and made from a physical blowing agent such as nitrogen, CO2, CFC and butanes (column 7, line 60 to column 8, lines 1-20, column 15, lines 5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the physical blowing agent for the chemical blowing agent to generate the

voids of the foam material because physical blowing agent and physical blowing agent have been shown in the art to be recognized equivalent blowing agents for the void formation of the construction materials.

14. Claims 1, 2, 6-8, 34, 40-42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) substantially as set forth in the 05/24/2005 Office Action.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) as applied to claim 2 above, further in view of Channey et al (Des. 422,718) substantially as set forth in the 05/24/2005 Office Action.

16. Claims 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) as applied to claim 34 above, further in view of Koffler et al (US 6,818,676) substantially as set forth in the 05/24/2005 Office Action.

17. Claims 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) as applied to claim 34 above, further in view of Patterson et al (US 6,784,230) substantially as set forth in the 05/24/2005 Office Action.

18. Claims 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) and Guntherberg et al (US 6,566,436) substantially as set forth in the 05/24/2005 Office Action.

19. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) and Guntherberg et al (US 6,566,436) as applied to claim 18, further in view of Koffler et al (US 6,818,676) substantially as set forth in the 05/24/2005 Office Action.

20. Claims 18-21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) and Ittel (US 2005/0058822) substantially as set forth in the 05/24/2005 Office Action.

21. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Detterman (US 5,789,453) in view of Andres (Des 426,320) and Ittel (US 2005/0058822) as applied to claim 18, further in view of Koffler et al (US 6,818,676) substantially as set forth in the 05/24/2005 Office Action.

Double Patenting

22. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

23. Claims 1, 2, 4, 6-8, 18-24, and 34-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over

claims 1-28 of copending Application No. 10/001,730 in view of Nystrom (US 5,474,831). Claims 1-28 of copending Application No. 10/001,730 disclose a foam material as a structural member having a closed cell structure and made from PVC and glass fibers. The copending Application No. 10/001,730 does not specifically disclose the shape of the foam material. Nystrom, however, teaches a construction member comprising a top surface, a concave bottom surface, a first side surface, and a second side surface. The first and second side surfaces are substantially orthogonal to the top surface (figure 2). Nystrom discloses the concave surface of the bottom surface defining a continuous art between the first side surface and second side surface. Nystrom teaches the deck plank having four rounded corners. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the construction material having the shape as taught by Nystrom motivated by the desire to shed water from its upper surface and facilitate stacking of the boards one on top of the other during storage and handling (column 2, lines 10-19).

None of the cited references discloses or suggests the processing steps recited in the claims. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of copending Application No. 10/001,730 as modified by Nystroms is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. Even though product-by-process claims are limited by and defined by the

process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. ***In re Thorpe***, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. ***In re Marosi***, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the US Application No. 10/001,730 and Nystrom.

24. Claims 1, 2, 6-8, 18-24, and 34-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 10/001,730 in view of Andres (Des 426,320) substantially as set forth in the 05/24/2005 Office Action.

25. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over claims 1-28 of copending Application No. 10/001,730 in view of Andres (Des 426,320) as applied to claim 2 above, further in view of Channey et al (Des. 422,718) 05/24/2005 Office Action.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

26. The art rejections and the ODP rejections have been maintained for the following reasons. Applicant argues that none of the cited references teach or suggest the internal closed cells in the composite material define 30% to 70% of the volume. The examiner disagrees. Detterman discloses the foam having a ***substantially*** closed cell structure (column 4, lines 5-7). Likewise, it is clearly apparent that the foam of Detterman having predominantly closed cell structure which would read on Applicant's closed cell content from 30% to 70% by volume. Applicant argues that Andres does not teach a deck plank having a recited surface. The examiner disagrees. Figures 6 and 7 of Andres show that a top surface, a bottom surface, a first side and second side surfaces wherein the bottom surface defines a concave surface that forms a generally continuous arc between the first side and the second side surface. The arc of the bottom surface has a constant radius between a first end that joins the first side surface and a second end that joins the second side surface as shown in figures 6 and 7 as well. Applicant argues that the copending Application No. 10/001,730 does not teach a carrier material. This is not true. The examiner directs applicant to claim 7 of copending Application No. 10/001,730. The pvc/glass melt is exposed to a blowing agent includes the combination of a chemical blowing agent and PVC which reads on Applicant's carrier material. Accordingly, the art rejections and ODP rejections are sustained.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Friday, from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

HAI VO
PRIMARY EXAMINER